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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,324	07/27/2001	Daniel John Lloyd-Jones	169.2130	5941

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EXAMINER	
HUNG, YUBIN	
ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/915,324	LLOYD-JONES, DANIEL JOHN	
	Examiner	Art Unit	
	Yubin Hung	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment/Arguments

1. This action is in response to amendment filed July 13, 2005, which has been entered.

2. Claims 1-23 are still pending.

3. In view of Applicant's amendment, the 35 U.S.C. 112 rejections to claims 1-11 have been withdrawn.

4. New grounds for rejection of claims 18-22 have been found; therefore, the finality of the office action mailed 05/13/2005 is withdrawn.

5. Applicant's arguments filed July 13, 2005 have been fully considered but they are not persuasive. See below.

6. In remarks Applicant argued in substance:

6.1 (regarding claim 1) *that the extraction of characteristics of a person, such as skin color or hair color, is not the same as selecting a part of the object [P. 14, last two lines]*

However, the argument is not persuasive because the extraction of hair (or skin) color (as recited in column 15, lines 35 and 36 of Hirai) inherently requires the extraction of hair (respectively, skin), which is part of a person (i.e., the "object" in question).

6.2 (regarding claim 1) *that Hirai is not understood to show a tagging of images [P. 15, 2nd paragraph]*

However, in column 15, lines 43-47 of Hirai the generation of M-icon 709 in effect tags images 701 and 704, both of which contain the desired feature.

6.3 (regarding claim 1) *that the comparing of the degree of color distribution between frames is understood to teach away from the claimed method of matching a color to the color of selected part of two reasons [P. 15, 3rd paragraph]*

However, this argument is not understood since no comparing of the degree of color distribution between frames is recited in the rejection of the claim.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 18-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Specifically, the following claim format is unacceptable and subject to a 101 rejection:

"A computer program which is configured to..."

Such a claim is non-statutory because the terminology "computer program" alone has no set definition.

The following claim formats are acceptable and not subject to a 101 rejection:

> "A computer program embodied in a computer readable medium for performing the steps of..." or
>
> "A computer readable medium storing a program for performing the steps of..."

A statutory product with descriptive material must include a positive recitation of the computer readable medium -- MPEP 2106, case law, USTPO policy, all are founded on this.

For examination purpose, the above claims will be interpreted as directed to a computer program embodied in a computer readable medium.

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Claim Rejections - 35 USC § 103

(from office action mailed 05/13/2005)

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1, 5, 6, 12, 17, 18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai et al. (US 6,526,215).

11. Regarding claim 1, and similarly claims 12, 17, 18, 23, Hirai discloses:

- choosing, from the set of images, an indicative image in which the specified object is present
  [Fig. 9; Col. 15, lines 27-32. Note that the object is the person A]
- selecting a part of the object
  [Col. 15, lines 35-36. Note that either skin or hair can be considered as the selected part]
- searching the set of images for the part dependent upon the color of the part
  [Col. 15, lines 37-38. Note the color of the selected part (e.g., hair) is used, along with other features, to determine the presence of the object (i.e., person A)]
- tagging the target image if said part is found therein
  [Col. 15, lines 43-53. Note that linking is a kind of tagging]

12. Regarding claim 5, and similarly claim 6, Hirai further discloses

- Said selecting step comprises an additional sub-step of selecting another part of the object having another color
  [Col. 15, lines 35-36. Note that the other part is the face with a facial color]
- Said searching step comprises an additional sub-step of searching the set of images for the other part of the object as well as for the part of the object
  [Col. 15, lines 35-38]
- Said tagging step comprises tagging images if both the part and the other part are found therein
  [Col. 15, lines 35-38]

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13. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai et al. as applied to claims 1, 5, 6, 12, 17, 18, 23 above, and further in view of Kinjo (US 2002/0046100 A1).

Regarding claim 2, Hirai further discloses

- the object is a person
  [Col. 15, lines 29-32]

Hirai does not expressly disclose that the part of the object is a fashion accessory worn by the person.

However, Kinjo teaches that the part of the object is a fashion accessory worn by the person. [Fig. 2, ref. 120; pp. 3-4, paragraph 63.]

Hirai and Kinjo are combinable because they both have aspect that is from the same field of face detection/identification.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Hirai with the teaching of Kinjo by detecting the presence of accessories such as earrings worn by the person in an image. The motivation would have been to determine the gender of the person, as Kinjo stated in Paragraph 63.

Therefore, it would have been obvious to combine Kinjo with Hirai to obtain the invention of claim 2.

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14. Claims 3, 4, 13, 14, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai et al. as applied to claims 1, 5, 6, 12, 17, 18, 23 above, and further in view of Isadore-Barreca et al. (US 6,205,231).

15. Regarding claim 3, and similarly claims 13 and 19, Hirai teaches/suggests all limitations except the following:

- wherein said selecting step comprises manual provision of designation information, in relation to the indicative image, said designation information identifying the part of the object

However, in [Fig. 1, numerals 36, 52; Fig. 2; Col. 7, lines 8-12; Col. 9, lines 1-8] Isadore-Barreca teaches/suggests an operation with which a user places tags (i.e., designation information) around the borders (i.e., parts) of an object.

Hirai and Isadore-Barreca are combinable because they all have aspects that are from the same field of endeavor of image processing.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Hirai with the teachings of Isadore-Barreca by manually providing information

to identify parts of interest from an image. The motivation would have been to offer users with options to make the system user friendly.

Therefore, it would have been obvious to combine Isadore-Barreca with Hirai to obtain the invention of claim 3.

16. Regarding claim 4, and similarly claims 14 and 20, Hirai further discloses the use of a menu. [Fig. 9. Note that menu buttons are on the left side of the figure.]

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17. Claims 10, 16, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai et al. (US 6,526,215) as applied to claims 1, 5, 6, 12, 17, 18, 23 above, and further in view of Dimitrova et al. (US 6,754,389).

18. Regarding claim 10, and similarly claims 16 and 22, Hirai teaches/suggests all limitations except the following:

- colour segmenting images in the set of images into at least one colour region and determining for each image in the set whether the color matches the at least one colour region

However, in [Fig. 3, numeral 330; Col. 8, lines 15-23] Dimitrova further teaches/suggests extraction of portions of the image containing flesh color (i.e., the hair color), which inherently segments the images into flesh- and non-flesh-color portions.

Hirai and Dimitrova are combinable because they all have aspects that are from the same field of endeavor of image processing.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Hirai with the teachings of Dimitrova by also searching facial skin color. The motivation would have been to facilitate the detection and location of the face, and hence the head and the body, of a person in an image, since facial skin color is a stronger indicator of the presence of a face in an image.

Therefore, it would have been obvious to combine Dimitrova with Hirai to obtain the invention of claim 10.

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19. Claims 7-9, 15, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai et al. (US 6,526,215) as applied to claims 1, 5, 6, 12, 17, 18, 23 above, and further in view of Platt ("AutoAlbum: Clustering Digital Photographs using Probabilistic Model Merging," *Proc. IEEE Workshop on Content-based Access of Image and Video Libraries*, June 16, 2000, pp. 96-100).

20. Regarding claim 7, and similarly claims 15 and 21, Hirai discloses all limitations of its parent, claim 1 except the following, which Platt teaches/suggests:

- deriving meta-data for a core set of images and grouping the core set into one or more event image sets dependent upon the meta-data
  [P. 97, left column, Sect. 2.1, 2nd & 3rd paragraphs]
- choosing the set oft images from the one or more event image sets
  [P. 99: Conclusion, lines 1-4. Note that one of the images is considered the indicative image and the rest the target images]

Hirai and Platt are combinable because they all have aspects that are from the same field of endeavor of image processing.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Hirai with the teachings of Platt by grouping images based on their creation time (i.e., meta-data) choose one of the groups (for viewing or further processing). The motivation would have been because temporally related images are almost always semantically related [Platt: P. 97, left column, Sect. 2.1, 3rd paragraph, last two lines].

Therefore, it would have been obvious to combine Platt with Hirai to obtain the invention of claim 7.

21. Regarding claim 8, and similarly claim 9, Platt further discloses

- wherein the meta-data comprises time stamps associated with the images in the core set, and said grouping step comprises, in relation to an image in the core set a sub-step of: assigning the image to an event image set if an associated time stamp falls within a predetermined event time interval
  [P. 97, left column, Sect. 2.1, 3rd paragraphs. Note that lines 3-5 indicates the existence of a time interval]

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22. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai et al. (US 6,526,215) and Dimitrova et al. (US 6,754,389) as applied to claims 10, 16 and 22 above, and further in view of Cosatto et al. (US 6,118,887).

Regarding claim 11, the combined invention of Hirai and Dimitrova teaches/suggests all limitations except the following:

- determining whether a size and a shape of said region matches the distinctive size and shape

However, in [Fig. 4, numeral 62; Col. 12, lines 41-51] Cosatto teaches/suggests using size and shape to determine whether a region represents a face (i.e., the part in question).

Hirai, Dimitrova and Cosatto are combinable because they all have aspects that are from the same field of endeavor of image processing.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combined invention of Hirai and Dimitrova with the teachings of Cosatto by also using size and shape features of a human face to detect the presence of a face in an image. The motivation would have been because both size and shape are features of a face and using multiple features can improve the accuracy of face detection.

Therefore, it would have been obvious to combine Cosatto with the combined invention of Hirai and Dimitrova to obtain the invention of claim 11.

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Contact Information

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yubin Hung whose telephone number is (571) 272-7451. The examiner can normally be reached on 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Yubin Hung
Patent Examiner
July 29, 2005

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